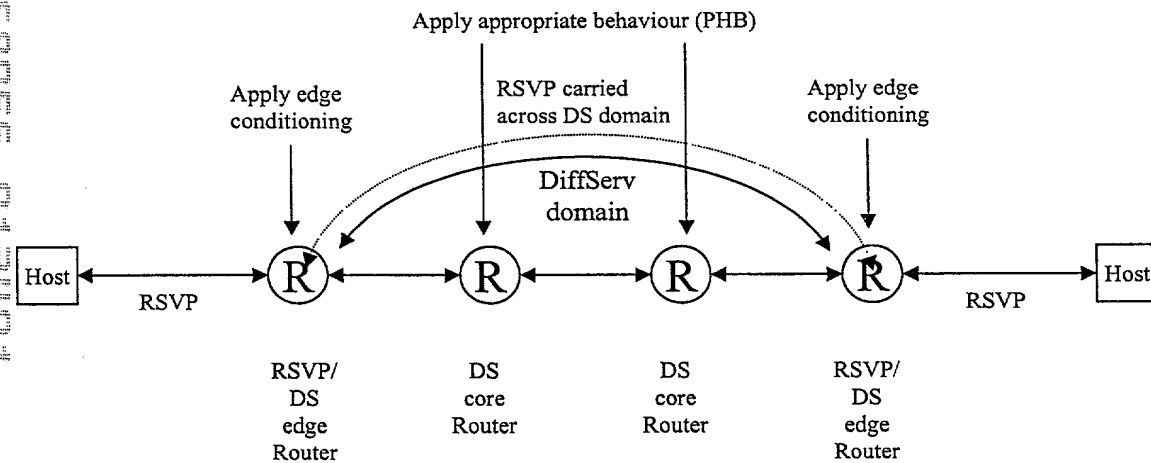
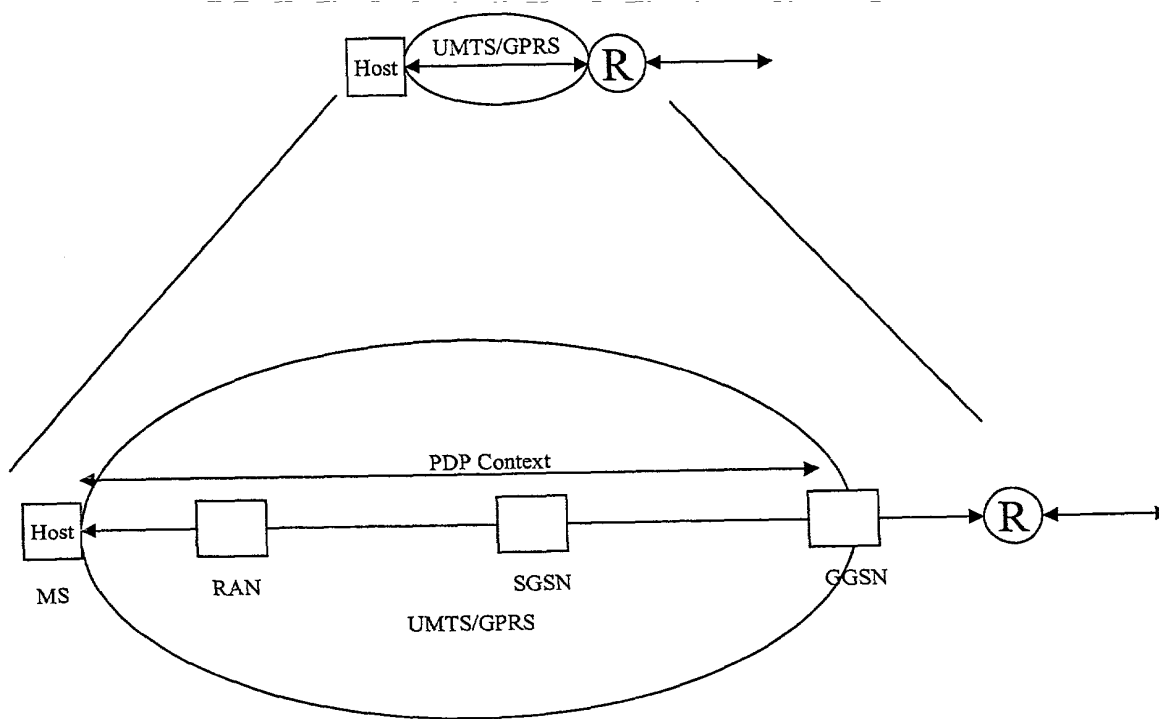


**Fig. 4**  
 PRIOR ART



**Fig. 5**  
 PRIOR ART



**Fig. 6**  
PRIOR ART

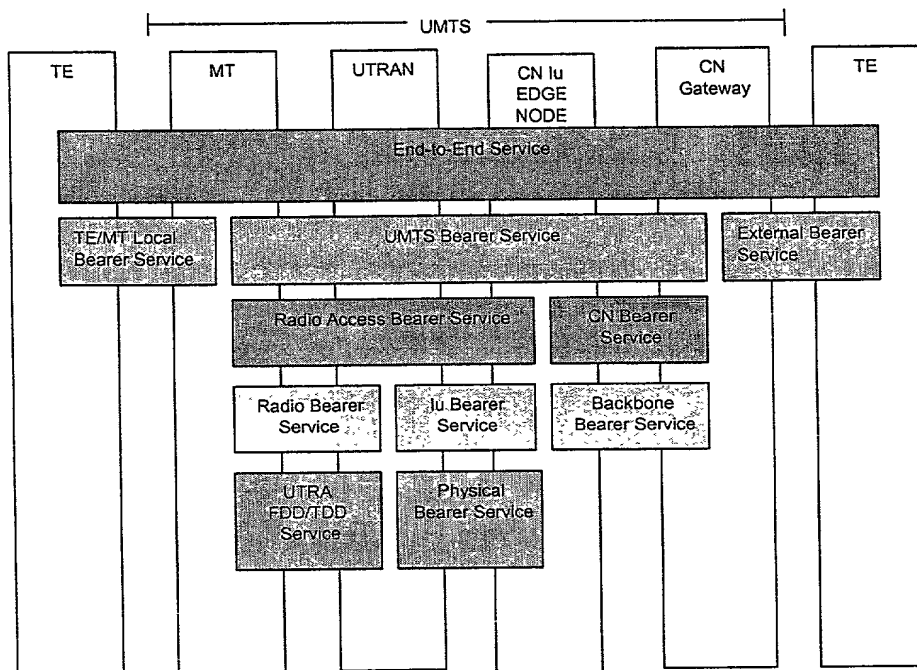


Fig. 7  
PRIOR ART

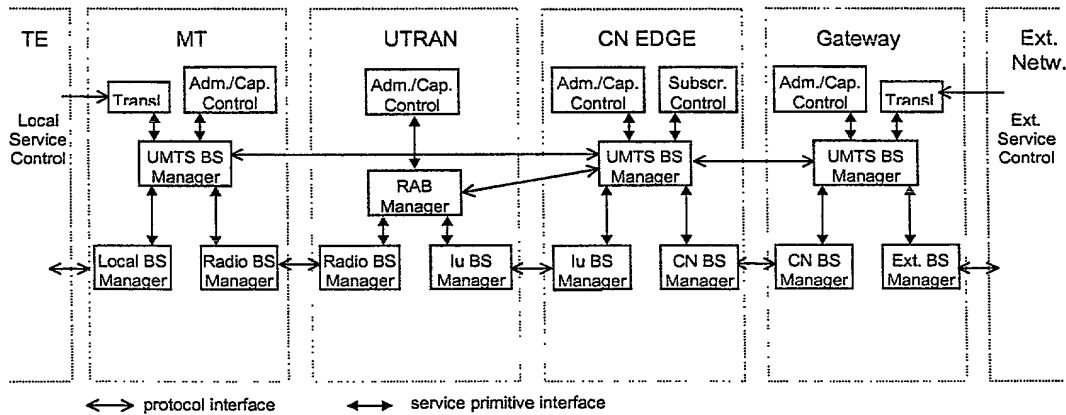


Fig. 8  
 PRIOR ART

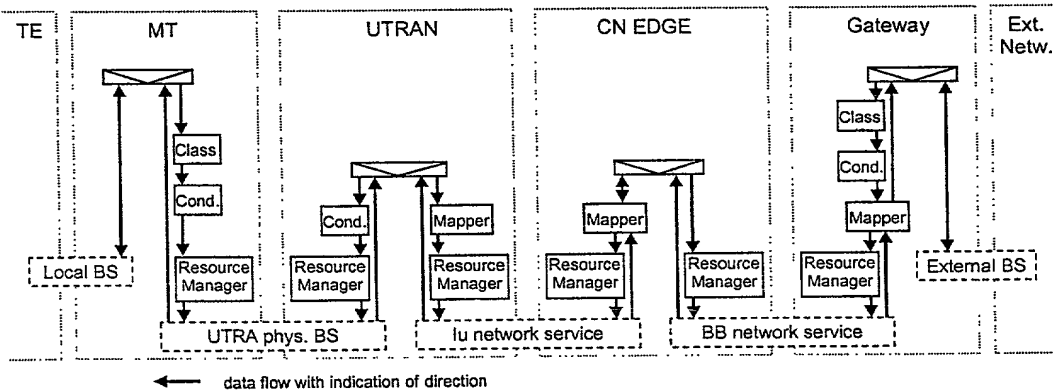


Fig. 9  
 PRIOR ART

Traffic class	Conversational class conversational RT	Streaming class streaming RT	Interactive class Interactive best effort	Background Background best effort
<b>Fundamental characteristics</b>	<ul style="list-style-type: none"> <li>• Preserve time relation (variation) between information entities of the stream</li> <li>• Conversational pattern (stringent and low delay )</li> </ul>	<ul style="list-style-type: none"> <li>• Preserve time relation (variation) between information entities of the stream</li> </ul>	<ul style="list-style-type: none"> <li>• Request response pattern</li> <li>• Preserve payload content</li> </ul>	<ul style="list-style-type: none"> <li>• Destination is not expecting the data within a certain time</li> <li>• Preserve payload content</li> </ul>
<b>Example of the application</b>	- voice	- streaming video	- Web browsing	- background download of emails

**Fig. 10**  
PRIOR ART

Traffic class	Conversational	Streaming	Interactive	Background
Maximum bit rate	X	X	X	X
Guaranteed bit rate	X	X		
Delivery order	X	X	X	X
Maximum SDU size	X	X	X	X
SDU format info *)	X	X		
SDU loss ratio	X	X	X	X
Residual bit error ratio	X	X	X	X
Delivery of erroneous SDUs	X	X	X	X
Transfer delay	X	X		
Traffic handling prio			X	
Allocation/ Retention priority	X	X	X	X
Source statistics descriptor *)	X	X		

\*) Parameter differs depending on if it is a UMTS BS description or a RAB service description

**Fig. 11**  
PRIOR ART

Traffic class	The traffic class label contains a lot of information itself
Maximum bit rate	Used for downlink code reservation, policing and shaping towards external networks
Guaranteed bit rate	Used for admission control and resource reservation
Delivery order	Used to settle whether PDUs have to be buffered and re-ordered in order to be in sequence at the output of the system
Maximum SDU size	Used for admission control and policing
SDU format info *)	RLC configuration. If information of all possible SDU sizes is given, then RLC can be transparent (in case no ARQ is needed).
SDU loss ratio	Used for ARQ configuration, Error detection configuration on L1 (CRC)
Residual bit error ratio	Choice of channel coding, error detection on L1
Delivery of erroneous SDUs	Is the NW allowed to discard packets in case of erroneous checksum?
Transfer delay	The delay is used to determine whether ARQ shall/can be used or not. Also used for transport format settings.
Traffic handling priority	For differentiate interactive service class for scheduling purposes
Allocation/ Retention priority	Used for admission control and settlement in case of congestion, i.e. who to admit and who to discard.
Source statistics descriptor *)	This information that gives the possibility to use statistics at admission control, e.g. speech and DTX.

\*) Parameter differs depending on if it is a UMTS BS description or a RAB service description

**Fig. 12**  
 PRIOR ART

Packet filter attribute	Valid combination types		
	I	II	III
Source Address and Subnet Mask	X	X	X
Protocol Number (IPv4) / Next Header (IPv6)	X	X	
Destination Port Range	X		
Source Port Range	X		
IPSec Security Parameter Index		X	
TOS (Ipv4) / Traffic Class (IPv6) and Mask	X	X	X
Flow Label (IPv6)			X

**Fig. 14**  
 PRIOR ART

FIG. 12 PRIOR ART

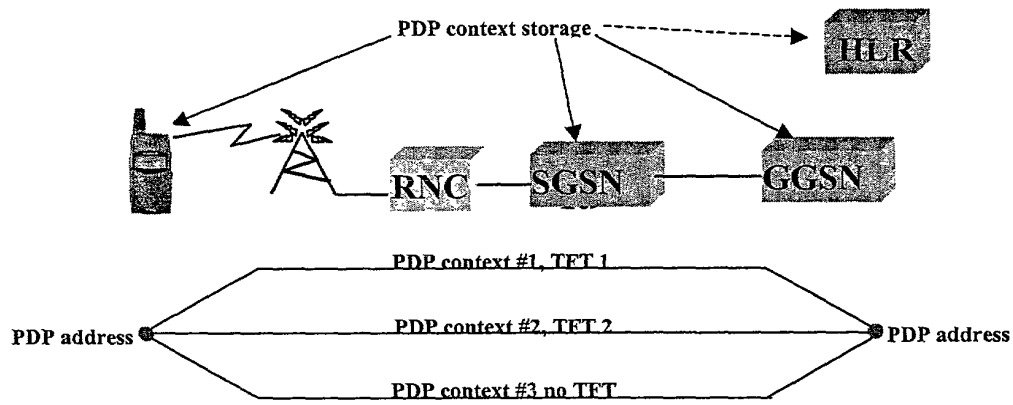


Fig. 13  
PRIOR ART



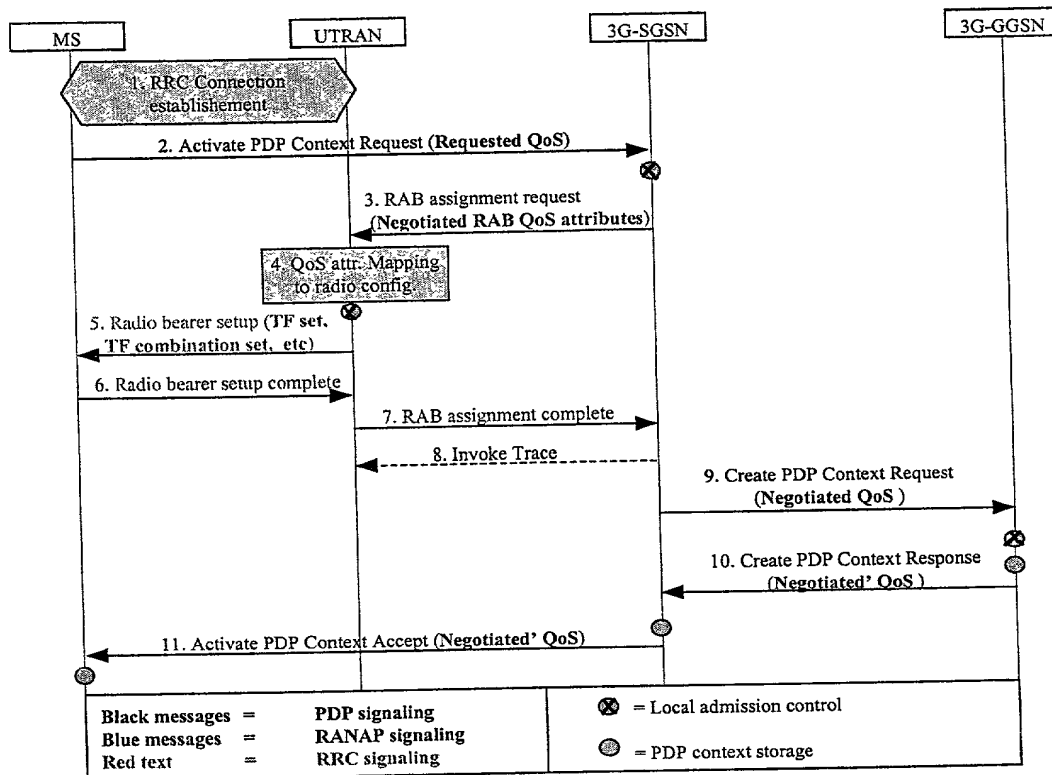


Fig. 15  
 PRIOR ART

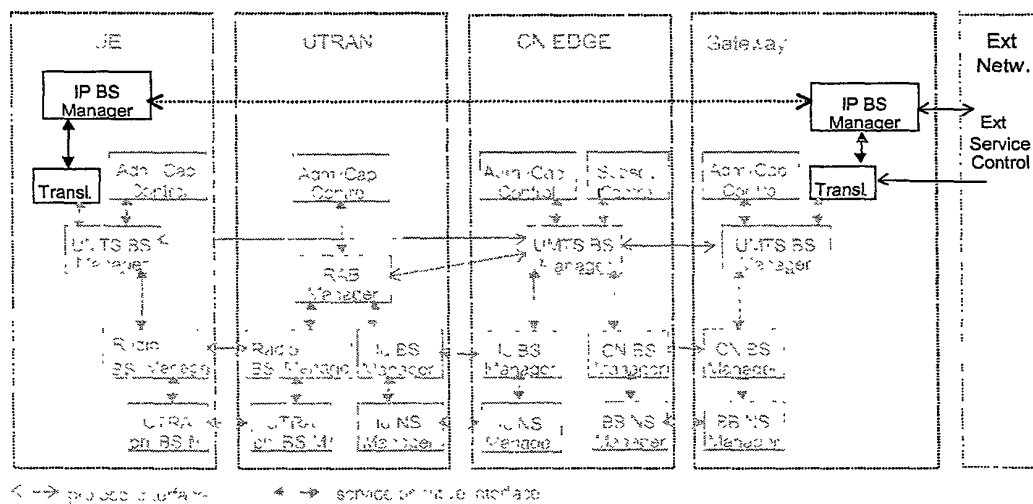
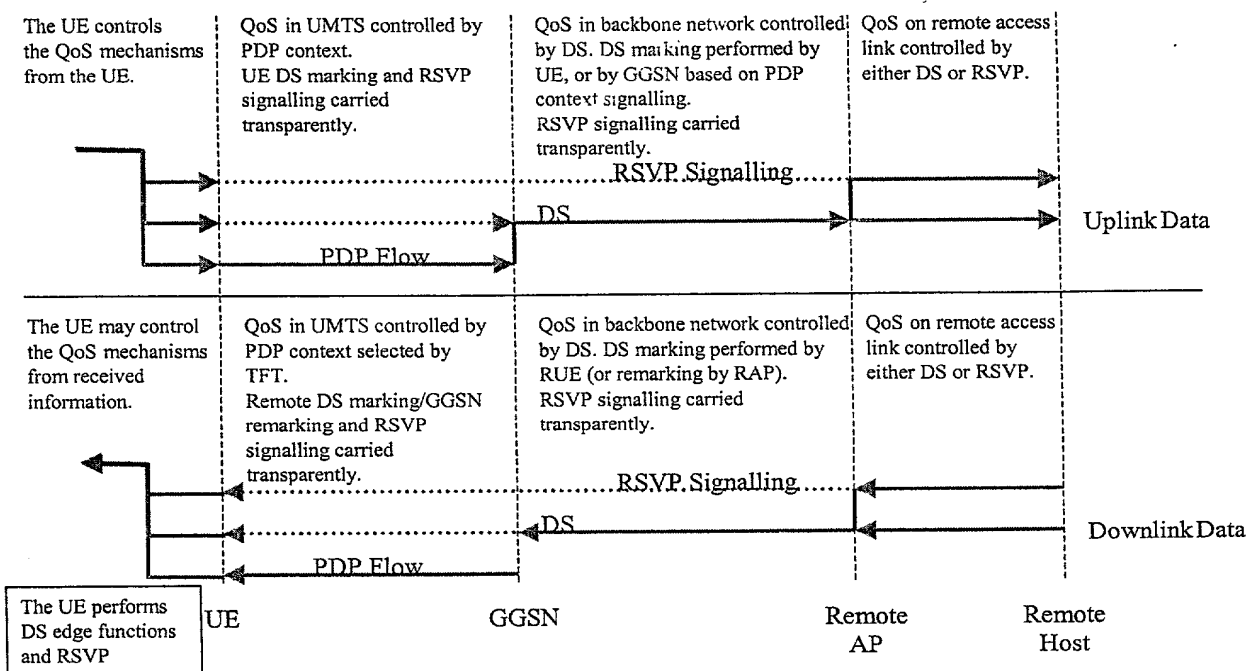


Fig. 16  
 PRIOR ART



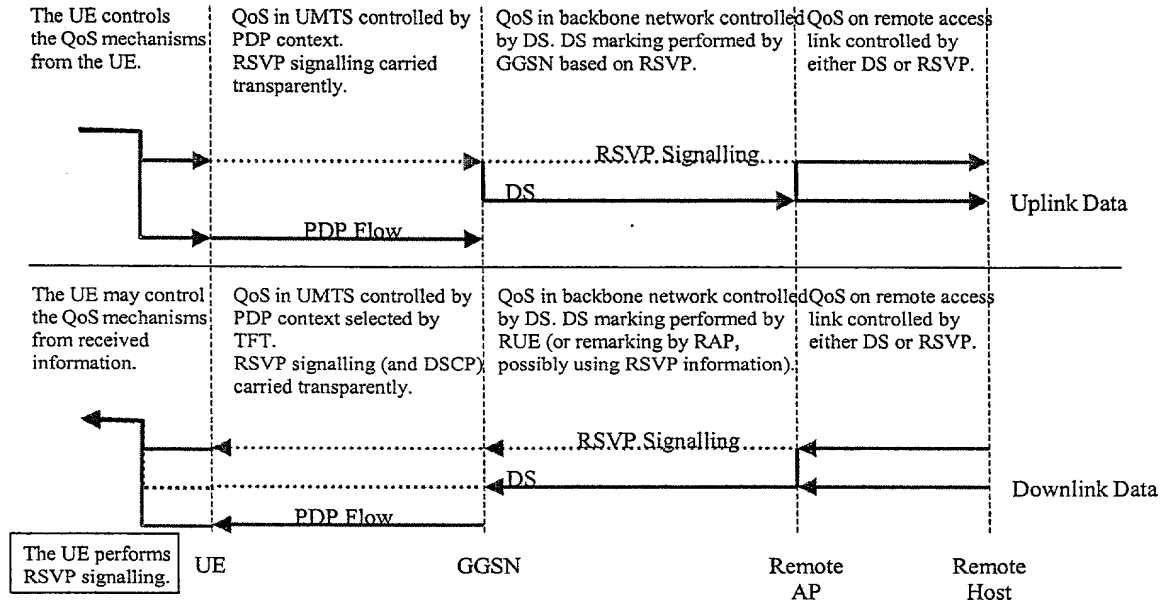


Fig. 18

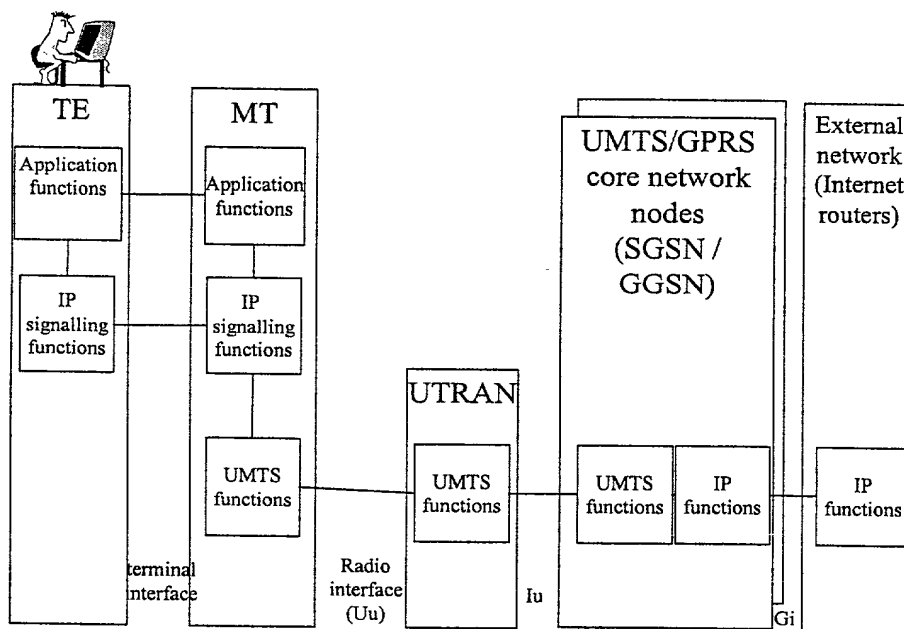


Fig. 19

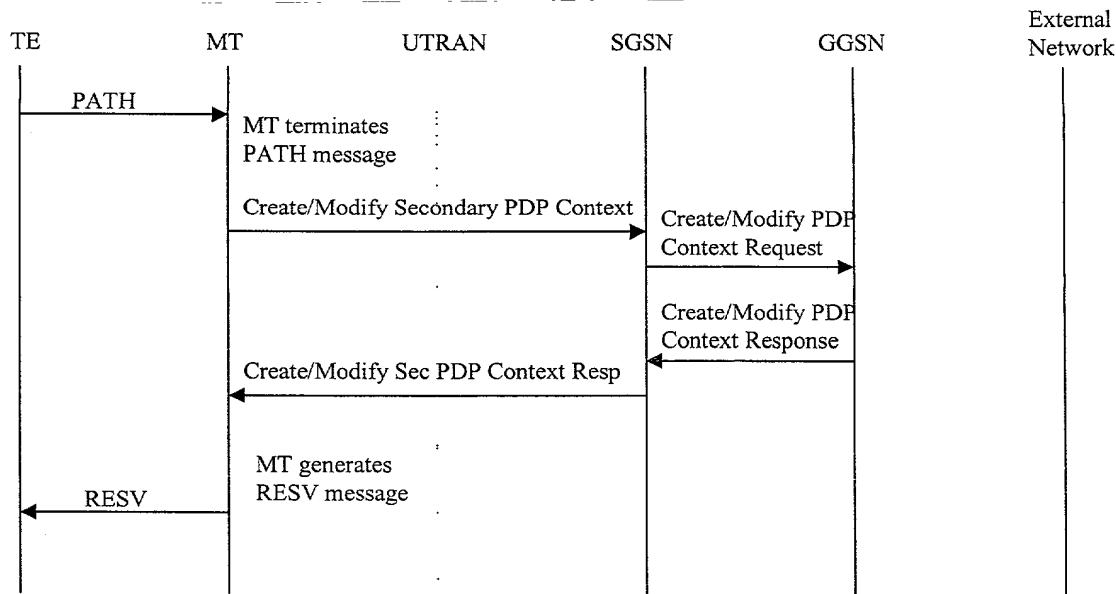


Fig. 20

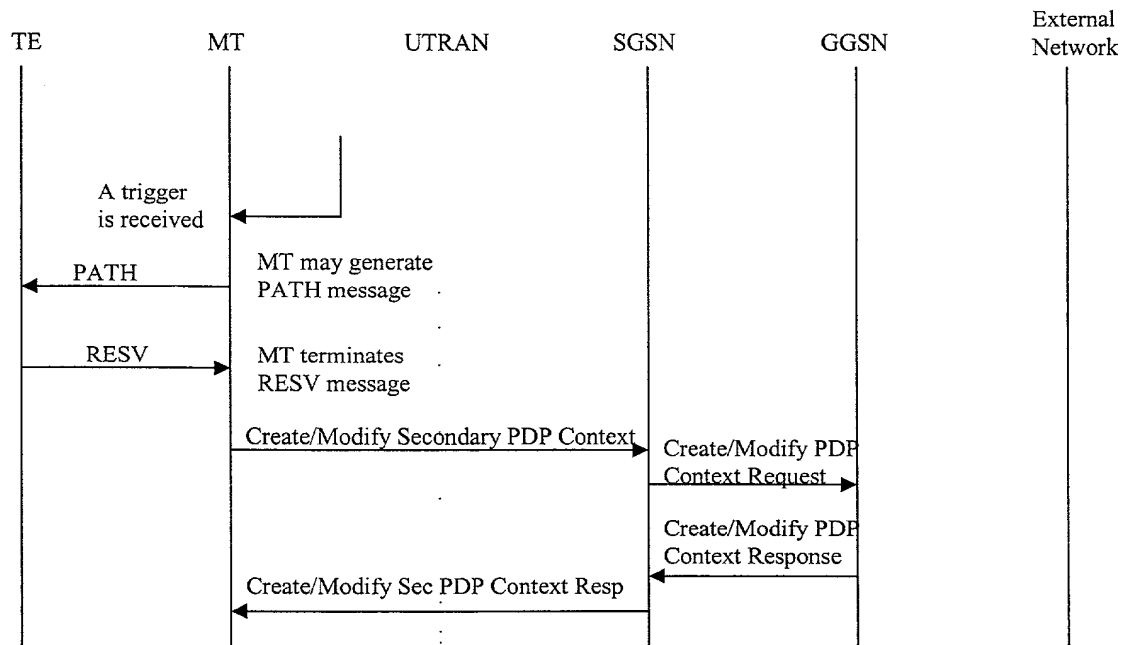


Fig. 21

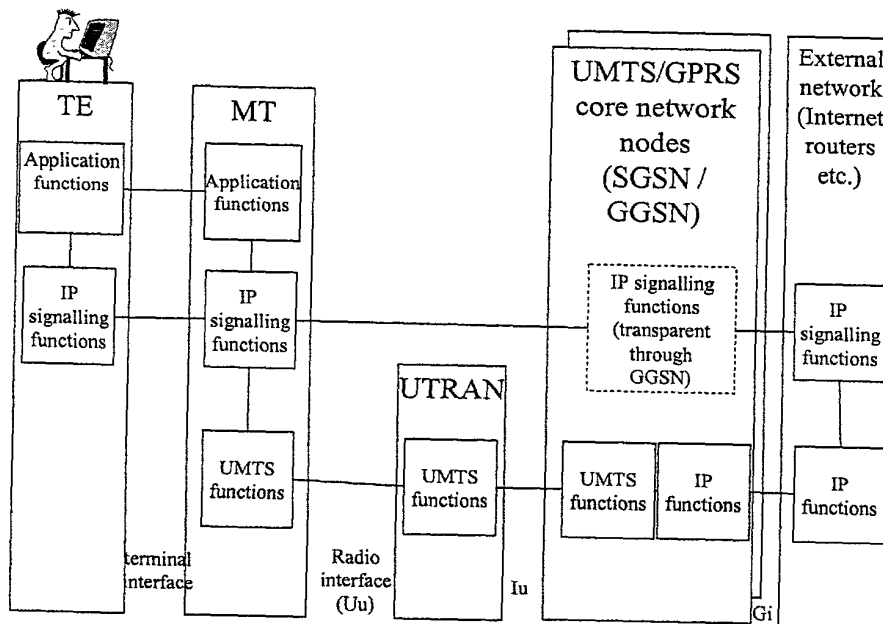


Fig. 22

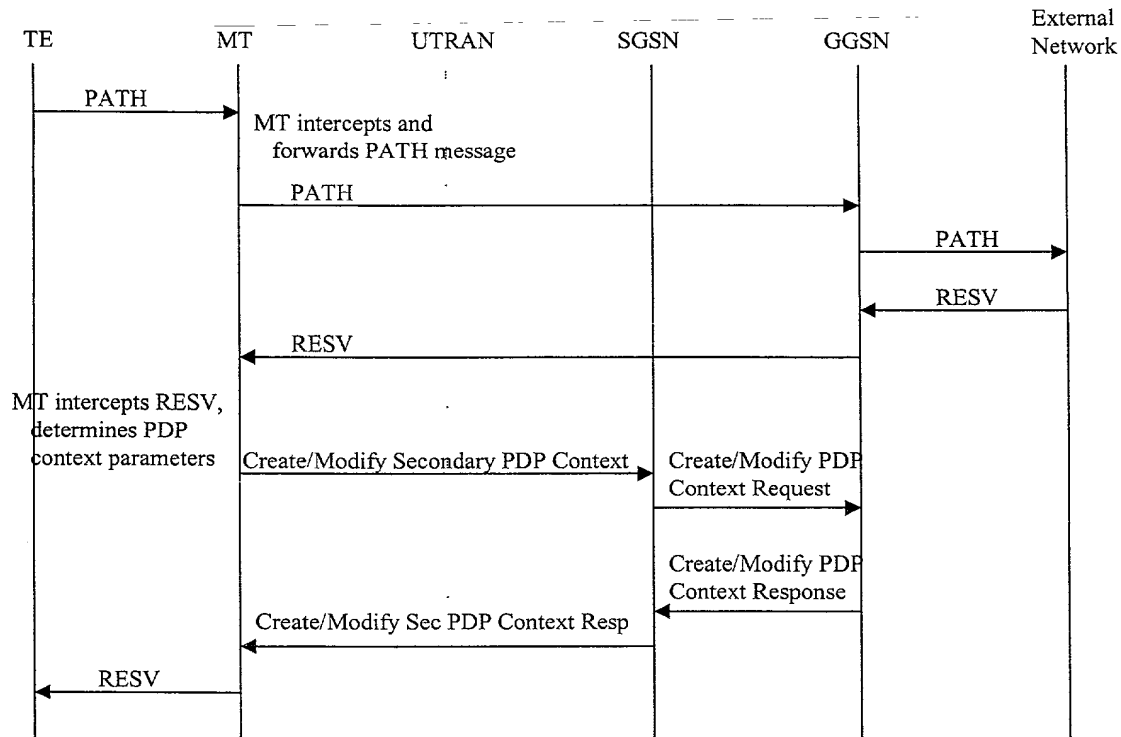


Fig. 23

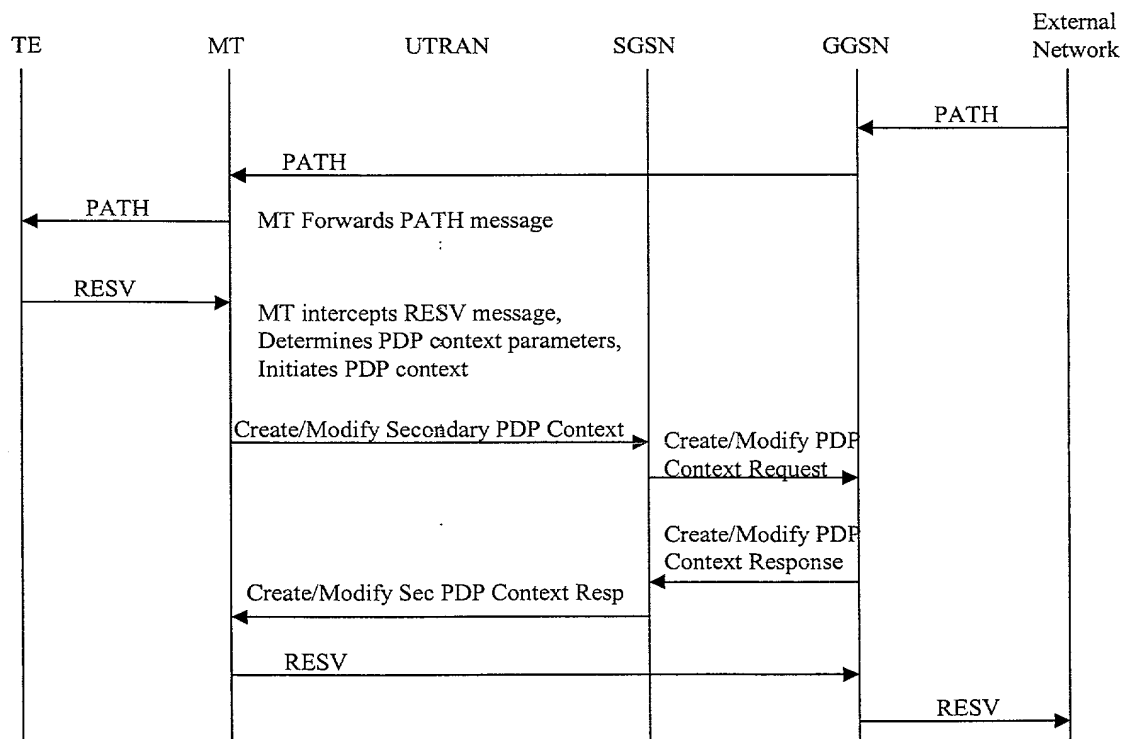


Fig. 24



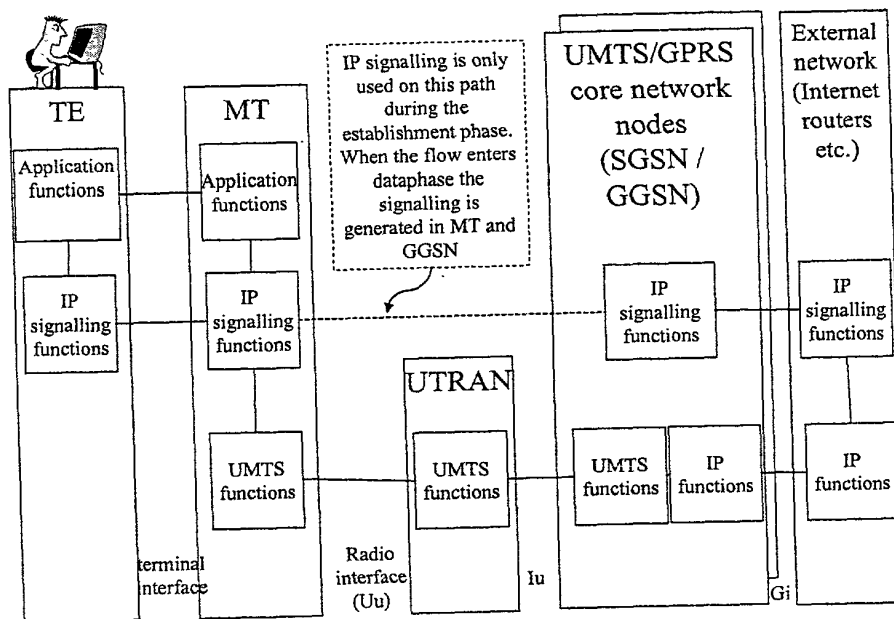
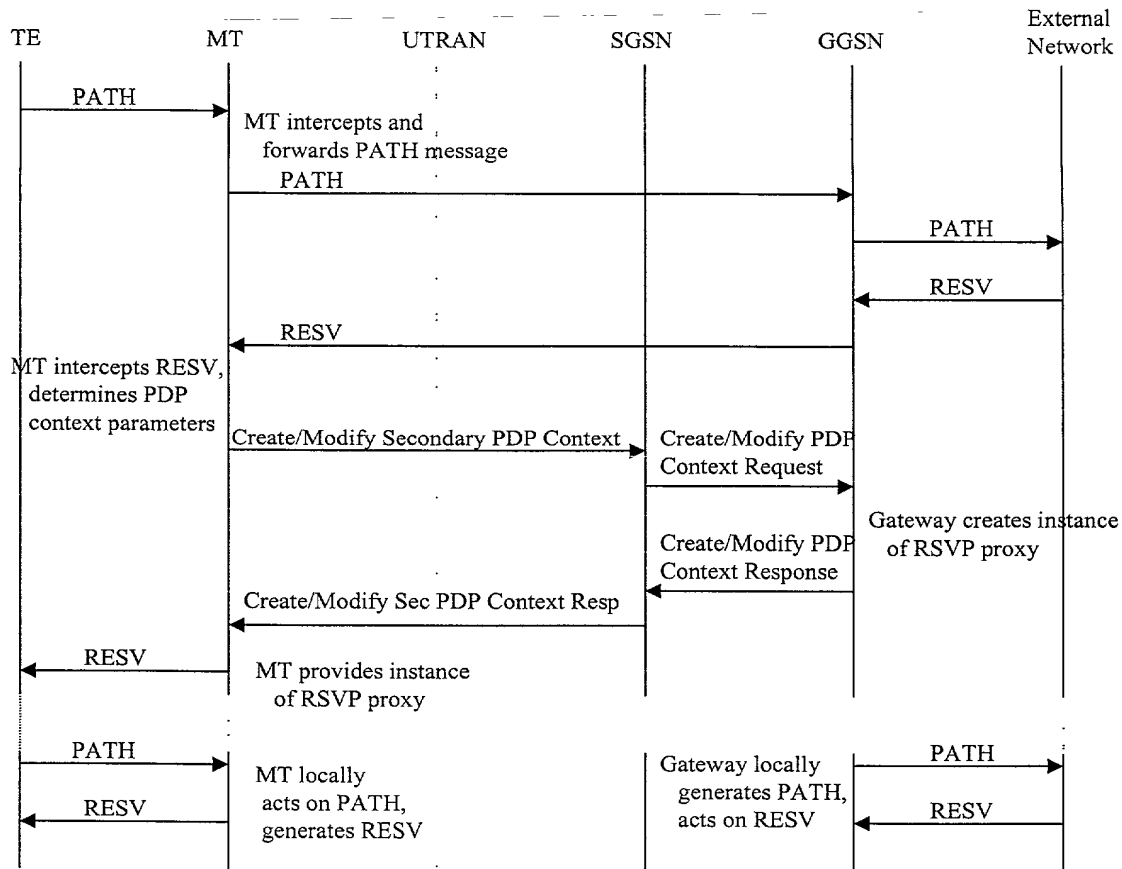


Fig. 25



**Fig. 26**

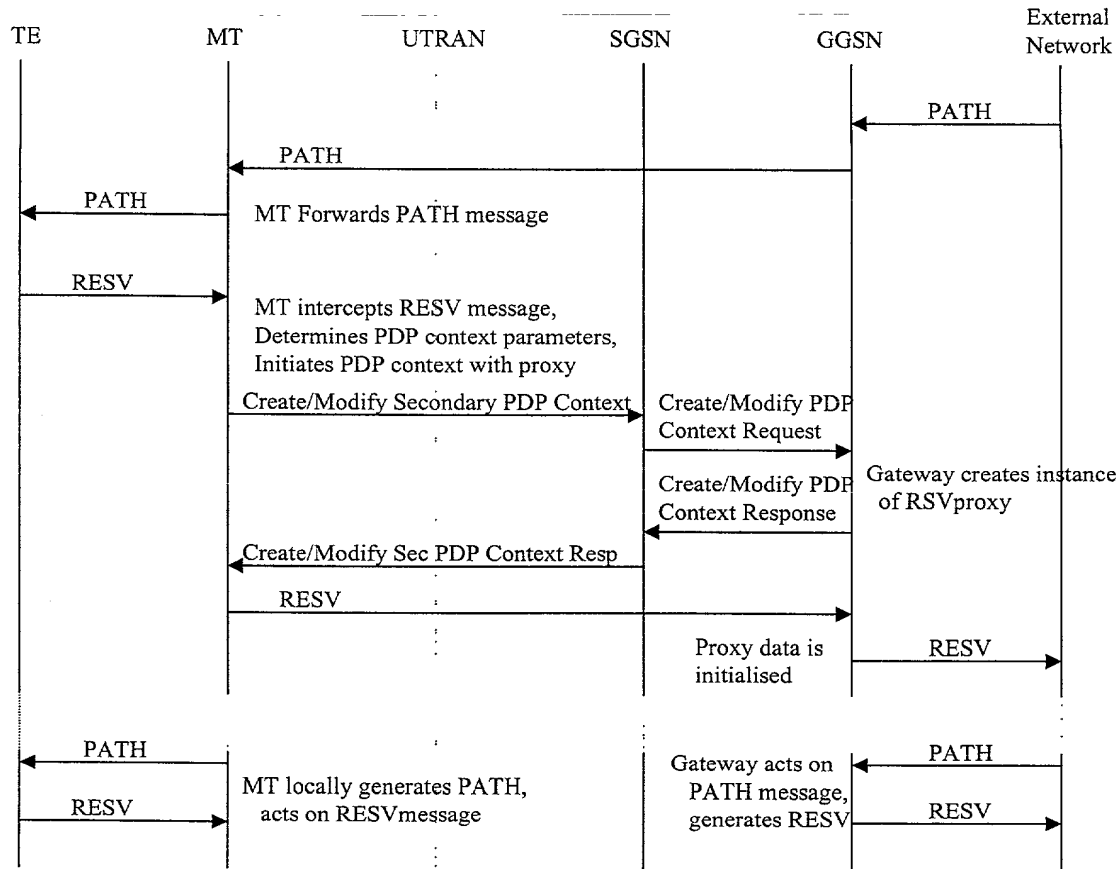


Fig. 27

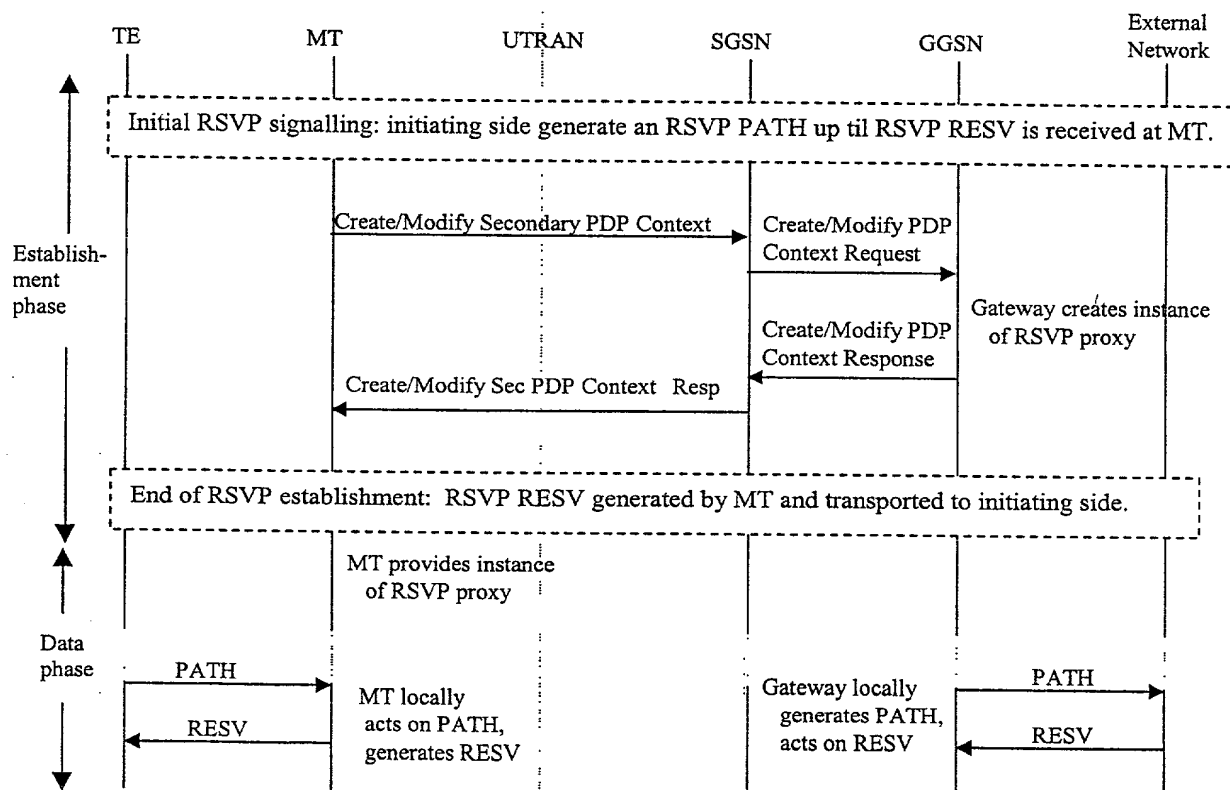


Fig. 28

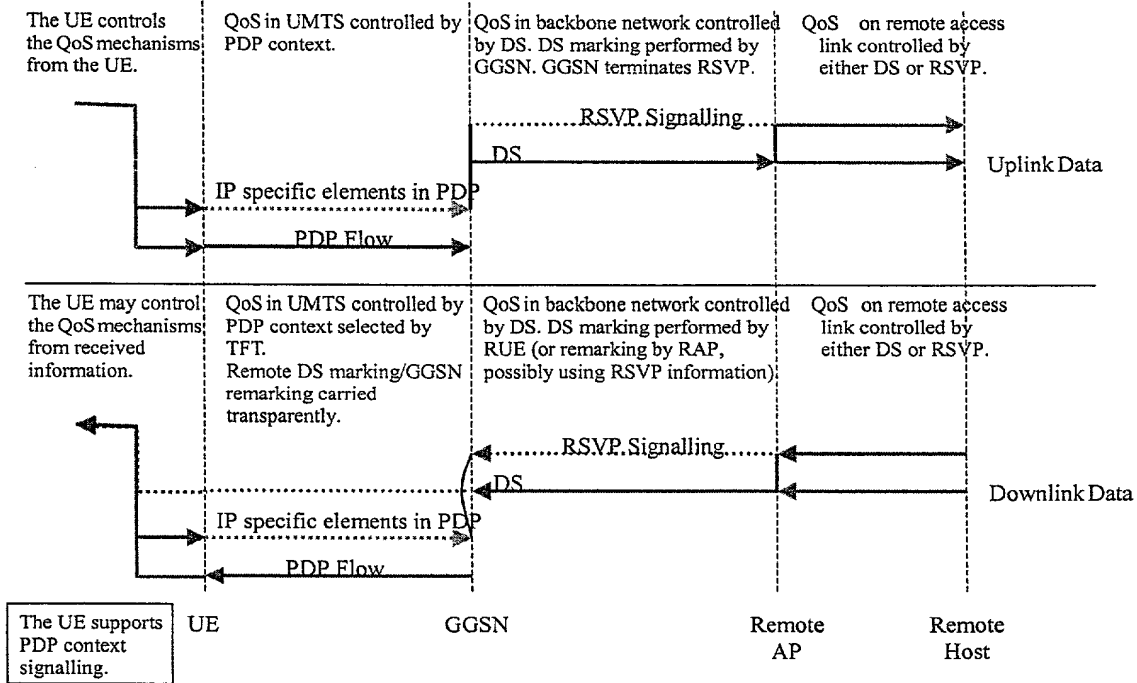


Fig. 29

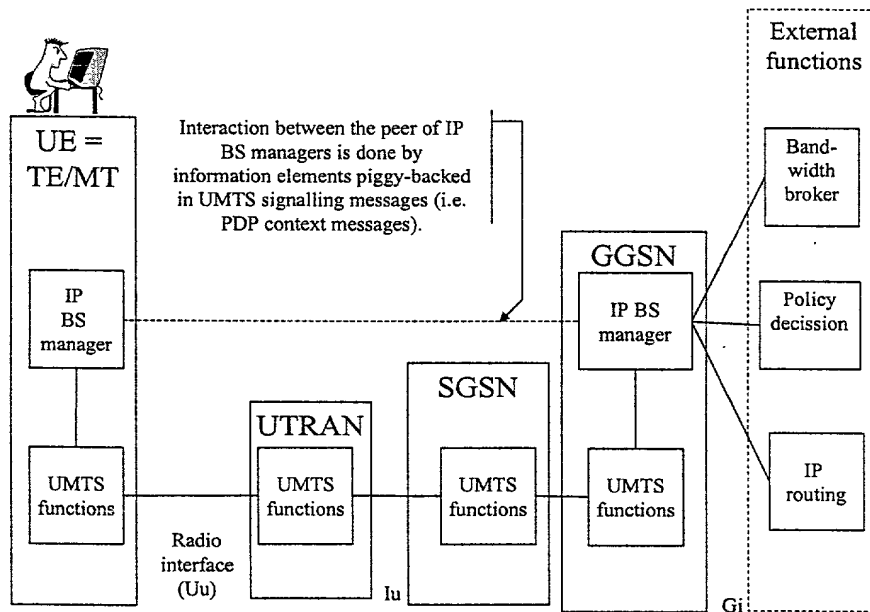


Fig. 30

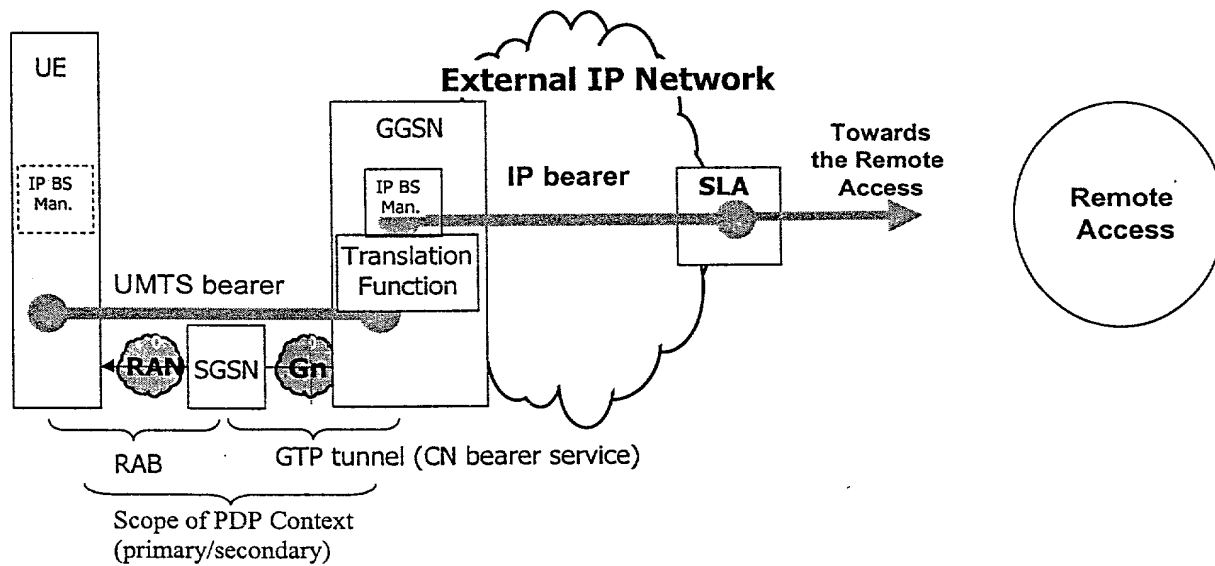


Fig. 31

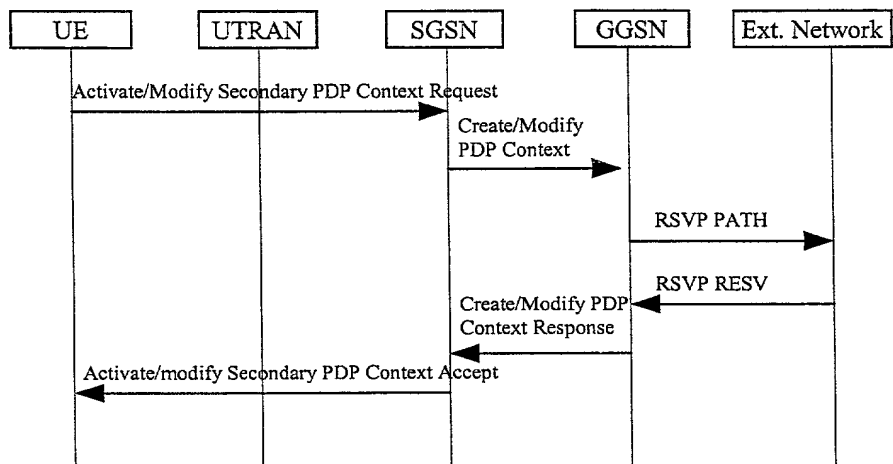


Fig. 32

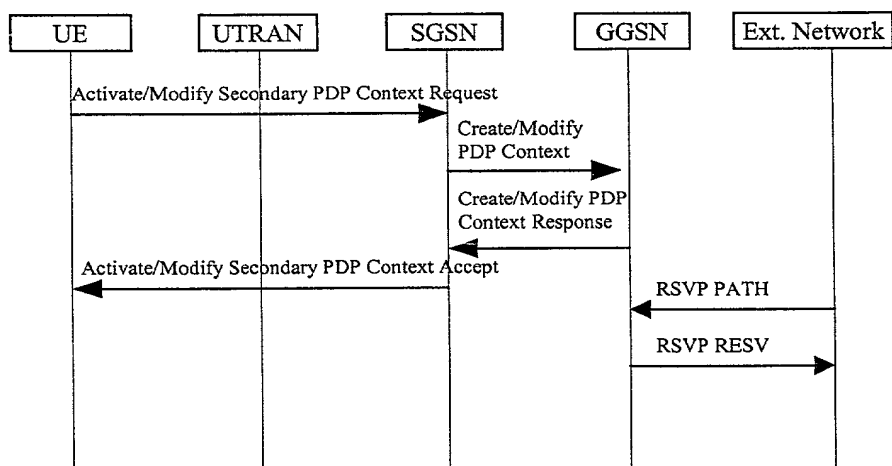


Fig. 33



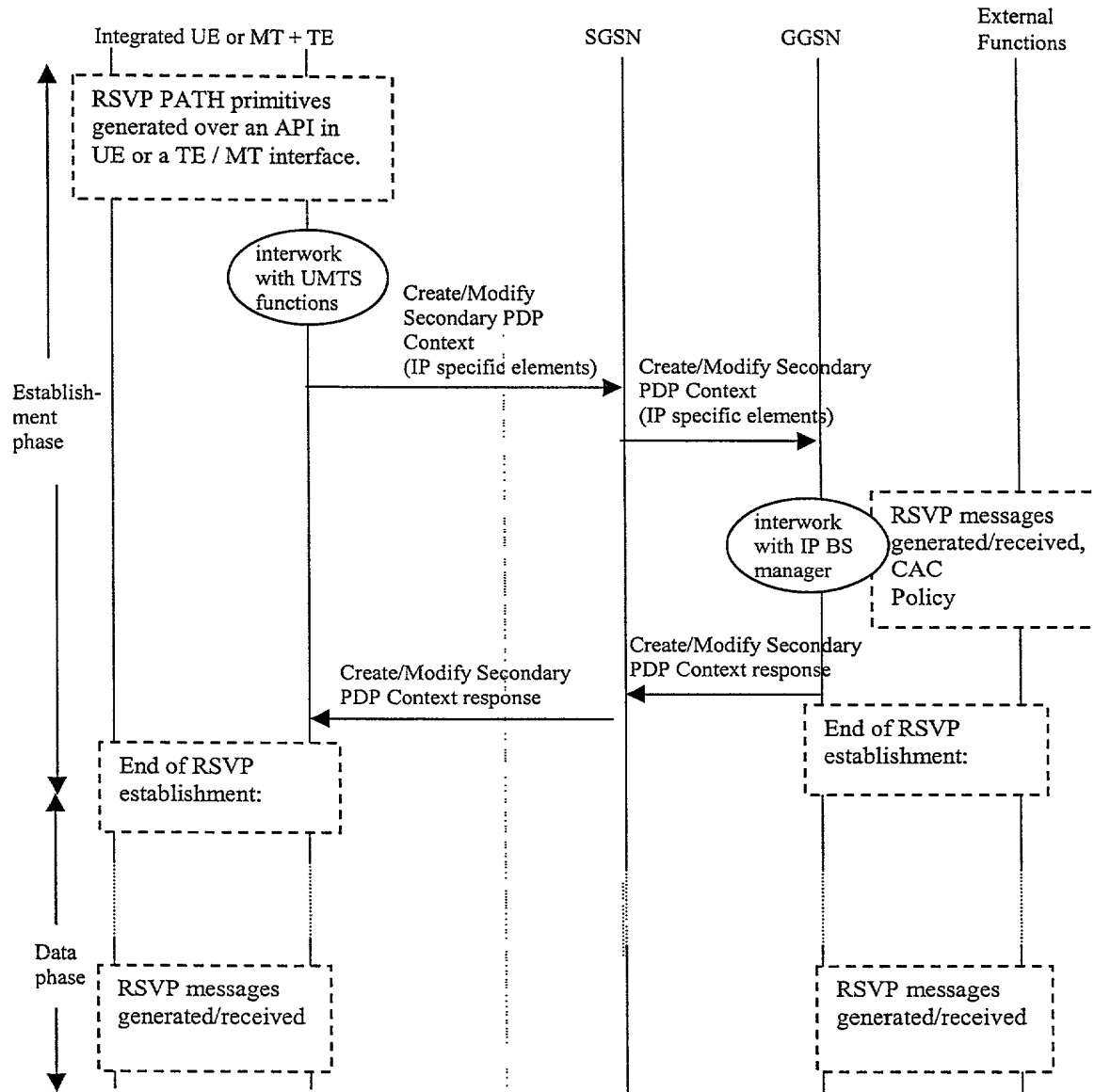


Fig. 34

